TITLE: Preparation of piperidine derivatives as tachykinin

receptor antagonists for treatment of frequent

urination and urinary incontinence

INVENTOR(S): Ikeura, Yoshinori; Hashimoto, Tadatoshi; Tarui, Naoki;

Shirai, Junya; Yamashita, Masayuki

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 264 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GΙ

PA'	PATENT NO.					KIND		DATE		APPLICATION NO.						DATE			
WO 2003101964				A1		20031211		WO 2003-JP6754						20030529					
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BE	3, BO	6, B	R,	BY,	BZ,	CA	, СН,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	ΕC	C, EE	, E	s,	FI,	GB,	GD	, GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	K	Ξ, Κ	, K	R,	KΖ,	LC,	LK	, LR,	LS,	
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MV	v, M	, M	Ζ,	NI,	NO,	ΝZ	, OM,	PH,	
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SE	K, SI	, T	J,	TM,	TN,	TR	, TT,	TZ,	
		UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZI	4, ZV	Ī							
	RW:	GH,	GM,	ΚE,	LS,	MW,	MΖ,	SD,	SL,	SZ	Z, T2	, U	G,	ZM,	ZW,	AM	, AZ,	BY,	
		KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BO	G, CH	I, C	Υ,	CZ,	DE,	DK	, EE,	ES,	
		FI,	FR,	GB,	GR,	ΗU,	ΙE,	ΙΤ,	LU,	MO	C, NI	, P	Γ,	RO,	SE,	SI	, SK,	TR,	
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	Gζ	Q, GV	7, M	L,	MR,	ΝE,	SN	, TD,	TG	
CA 2487688				A1 20031211				CA 2003-2487688						20030529					
AU 2003241903									AU 2003-241903										
BR	BR 2003011425							BR 2003-11425					20030529						
EP	1553084			A1	A1 20050713			EP 2003-733151					20030529						
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GI	R, II	., L	Ι,	LU,	NL,	SE	, MC,	PT,	
		IE,	SI,	LT,	LV,	FΙ,	RO,		•		•	•					, SK		
CN 1671662								CN 2003-818354											
NZ 537330								NZ 2003-537330											
JP 2004285038									JP 2003-154345										
MX 2004PA11730									MX 2004-PA11730										
US 20060167052											1-516252								
						20060726				2004-10085									
IN 2004KN01942					20061201				N 2004-KN1942 O 2004-5701										
	NO 2004005701				А		2005	0216									20041		
RIORIT	IORITY APPLN. INFO.:										2002						20020		
											2003	_		_			20030		
										WO	2003	B-JP	675	54		W	20030)529	
THER S	HER SOURCE(S):				MARI	PAT	140:27765												

AB The title compds. I [wherein Ar = (un)substituted aryl, aralkyl, or heteroaryl; R1 = H, acyl, (un)substituted hydrocarbyl, or heterocyclyl; X = O or (un)substituted NH; Z = (un)substituted CH2; ring A = (un)substituted piperidine; ring B = (un)substituted aryl; with exclusions] or prodrugs or salts thereof are prepared I have excellent tachykinin receptor antagonistic activity, and are useful for the treatment of frequent urination and urinary incontinence (no data). For example, the compound II•xHCl was prepared in a multi-step synthesis. II showed antagonistic activity with IC50 of 0.025 nM against human substance P receptor. Formulations containing I as an active ingredient were also described.

IT 632352-46-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperidine derivs. as tachykinin receptor antagonists for treatment of frequent urination and urinary incontinence)

RN 632352-46-6 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 1,2-dihydro-5-[2-[(3R,4S)-4-[[[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]phenyl]methyl]amino]-3-phenyl-1-piperidinyl]-2-oxoethyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.